



UNITED STATES PATENT AND TRADEMARK OFFICE

41

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,155	03/13/2004	Wolfgang Haas	0809 A US	6785
20676	7590	06/07/2007	EXAMINER	
ALFRED J MANGELS 4729 CORNELL ROAD CINCINNATI, OH 452412433			CHARLES, MARCUS	
			ART UNIT	PAPER NUMBER
			3682	
			MAIL DATE	DELIVERY MODE
			06/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/800,155	Applicant(s) HAAS ET AL.	
	Examiner Marcus Charles	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 9-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the first action on the merit relating to serial number 10/800,155 and response to the election filed 05-14-2007. Claims 1-19 are currently pending.

Election/Restrictions

1. Applicant's election with traverse of species 1, (fig. 1) in the reply filed on 5-14-2007 is acknowledged. The traversal is on the ground(s) that although there are some structural differences of the species it is believed the inventions as claimed are similar so as to be searchable in the same area. This is not found persuasive because each species has a structure and function that operates differently and the search would be burdensome and time consuming to the examiner

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 9-15 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/14/2007.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

4. The examiner has accepted the drawing filed with this application as formal drawing.

Claim Objections

5. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 8 (second occurrence) been renumbered to claim "9".

For the purpose of this office action, the misnumbered claim 8 (second occurrence) will be referred to as claim 9.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claim 4-8 and 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 4, the intended scope of the claim is confusing because it is as if "outer, axially-fixed conical disk pairs" are part of the two conical disk of claim one or are newly introduced disks. It appears that they are part of the input and output disk.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3682

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Tomiyori et al. (4,674,994). Tomiyori et al. disclose a CVT having an input side (13) and an output side (13) and comprising two conical pairs (see fig. 1) on the input side and two conical disk on the output side (13); two endless belts (11/12) disposed in parallel and extending between and entrained around the inside and outside pair of conical disks, wherein each conical disks pairs have asymmetrical conical angles.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Case et al. (3,715,928) in view of DE (3015495). Giacosa discloses a CVT having an input side (54/56) and an output side (50/52) and comprising two conical pairs (not labeled) on the input side and two conical disk on the output side (not labeled)(see fig. 1); two endless belts (82/90, in fig. 1) disposed in parallel and extending between and entrained around the inside and outside pair of conical disks. Case et al. does not disclose the conical disk pairs have asymmetrical conical angles. (DE (3015495) discloses a CVT having conical belt engaging contact surfaces that are asymmetrical. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify

the belt engaging grooves of Case et al. so that they have asymmetrical angles in view of DE (3015495) in order to avoid displacement and irregular frictional wear.

In claim 2, note the two conical disk pairs on the input side and two conical disk pairs on the output side include two outer axially fixed conical disks (68).

12. Claims 3-5 and 16-17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Case et al. in view of DE (3015495) as applied to claim 1 above, and further in view of Moogk (3,365,967). The combination of Case et al. and DE (3015495) fail to disclose the values of the angles of the asymmetrical surfaces. Moogk discloses a CVT having conical disks contact surface that are asymmetrical such that the angle of the fixed conical disk is up to 1° (which is within the range of less than about 1°) and the angle of the movable disk is 19° (which is within the range between 10° and about 30°) in order to reduce frictional and wear. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the disk of Case et al. so that the angles are within ranges as specified by Moogk in order to reduce frictional and wear.

In claim 5, note the actuator (112/114) of Case et al. between the axial displaceable disks (68).

In claims 6-7, Case et al. disclose the claimed invention.

In claim 16-17, Moogk discloses the claimed invention above.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Case et al. in view of DE (3015495) and Moogk as applied to claim 1 above, and further in view of Giacosa (4,875,983). Neither Case et al. in view of DE (3015495) and Moogk

disclose the actuator is a piston cylinder unit. It is well known in the art that the use of a piston/cylinder unit for actuating the moveable disk of a CVT reduces frictions associated with mechanical parts, reduce friction and heat and increases accuracy in the system. Giacosa discloses a piston/cylinder unit (1) between the moveable disks. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the device of Case et al. so that the actuators are piston/cylinder units in view of Giacosa et al. in order to reduce friction associated with mechanical parts, reduce wear and heat and increases accuracy in the system.

Allowable Subject Matter

14. Claims 8 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Citation

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, set forth in PTO form 892 attached therewith.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Marcus Charles
Primary Examiner
Art Unit 3682
June 04, 2007